



BRIEF GUIDE TO CANOEING TECHNIQUES



By John Malo

The canoe is a versatile craft. It can be propelled forward or backward and abruptly stopped; it can also be made to travel in a small circle, move sideways, spin halfway around, or completely around on the spot, so that the bow of the canoe returns to its original position.

Ease of propelling a canoe is enhanced by the pointed bow and stern. This streamlined form quietly and efficiently cuts the water,

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pushes it aside and then permits it to flow to the stern with little disturbance. The craft requires only several inches of water for flotation, and because of little water resistance a swipe of the paddle sends it skimming along. Neither strong muscles nor extensive practice is necessary to develop the smoothly flowing movements of a good paddler. Learning a few basic paddling skills will give you command of your canoe and confidence in its control.

While learning the skills of canoeing, do not go out on the water alone. If possible, go with an experienced canoeist who will constructively criticize your paddling techniques. You should wear a life jacket in the canoe, and you should know how to swim or at least how to stay afloat.

PADDLING STROKES

Begin your paddling sessions with a partner on a shallow lake or slow-moving stream. The two of you should stroke rhythmically together on opposite sides of the canoe. At first make short runs along the shore. After a few sessions, you will be stronger and better skilled and will be able to stay out for a longer time.

In the beginning, position yourself in the bow of the canoe, with your fellow paddler in the stern. This will enable you to learn the bow strokes, used primarily to move the canoe forward. Later you can progress to the stern position, where the steering strokes are executed. The bow position, with only a few feet of canoe ahead of you, gives you a feeling of confinement. It is different from the stern position, with ten or more feet of stable craft looming securely in front of you.

Once stationed in the bow, you may paddle from either a sitting or a kneeling position. Although some experts recommend only the kneeling position, many canoeists find that they are able to handle the canoe efficiently, safely and far more comfortably from the sitting position. Certainly it is easier for most beginners to learn paddling while seated on the bow seat. The thwarts must never be used as seats, for the high seating position affects balance, and a sudden lurch or high wave will topple a person.

The kneeling position was, of course, used by those expert paddlers, the American Indians. They knelt while paddling to obtain better control, stability, safety and stroking power. The paddler who sits erect on a canoe seat places all the strain on his arm and shoulder muscles. The kneeling paddler uses his arms and shoulders plus his back and thigh muscles. This method requires less exertion, while gaining more speed.

In the customary kneeling position, the paddler places his knees 12 to 18 inches apart on the pad on the floor of the canoe. He rests on his heels and braces his backside against a thwart. This low position, besides having a muscular advantage and added stroking power, offers less resistance to the wind.

As a variation to the customary position, the paddler may kneel on one knee only, with the other leg extended forward. Braced in this way, he has three points of support: knee, extended leg and body against the thwart. For paddling freedom and better stroking leverage, the knee on the paddling side is down, while the other leg is extended. To relieve muscle strain, the paddling side and the leg positions can be changed from time to time.

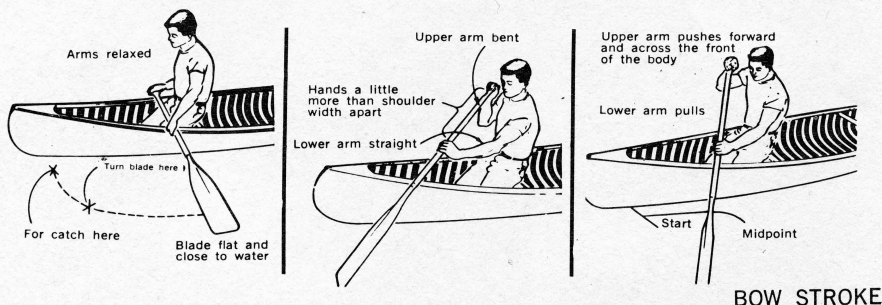
For safety and progress in solo paddling, kneeling is a must. The paddler can easily trim the canoe by moving fore or aft until the proper balance position is found. However, to reach the water effectively with the paddle from amidships, a slight tilt to the canoe is necessary. The paddler accomplishes this by taking a position slightly off center, toward the paddling side.

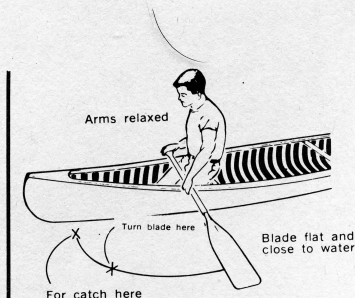
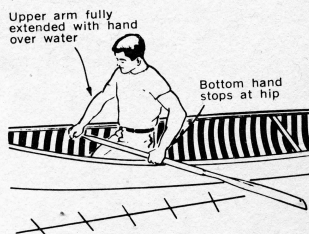
Even though paddling from the knees will probably cause preliminary discomfort, you should add the technique to your canoeing skills. Through practice, your body will become accustomed to the stresses of this paddling method, which produces great speed and efficiency when mastered.

In both the sitting and the kneeling positions, your posture should be essentially the same. Your back should be straight, your muscles relaxed and your head held high. Turn your body slightly toward the water on your paddling side. Remain upright throughout each stroke, and do not sway your body. Your own comfort and the response of the canoe to your paddling will indicate whether you are in the proper position and are stroking correctly.

The Bow Stroke. The first strokes you should learn are the two strokes for propelling the canoe forward—the bow stroke and the J stroke. The bow stroke is the simpler one. It is a straight pull and power stroke executed from the bow of the canoe. It has little steering function.

The bow stroke, and most other strokes, can be performed on either the right or the left side. To cover both situations, the





BOW STROKE

following instructions do not refer to the right hand or arm or the left hand or arm. Instead, the term "upper" is used to designate the hand and arm controlling the paddle grip, and lower to designate the hand and arm controlling the paddle throat.

For the bow stroke, assume your sitting or kneeling position in the bow of the canoe. Hold the paddle in the direction of the bow. Dip the paddle blade into the water close to the bow and at a right angle to the center line of the canoe. Keeping close to your chin, thrust your upper arm diagonally forward like a boxer throwing a punch in slow motion. Your lower hand, acting as a moving fulcrum, or axle, permits the paddle to move through the water like a pendulum. This lever action drives the canoe forward.

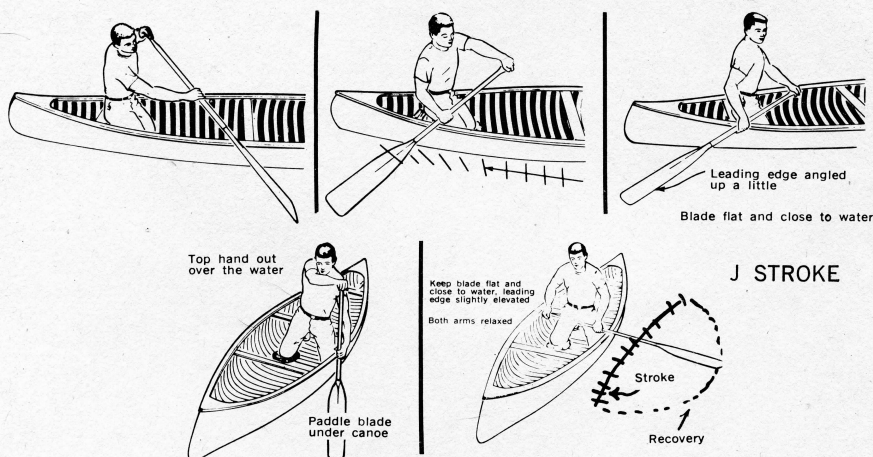
The blade's path should be parallel to the center line of the canoe and not to the curved side. However, perform this stroke as close as possible to the side of the canoe without scraping your hand, the paddle or the gunwale of the canoe.

When the blade reaches a point opposite your hip, twist the paddle counterclockwise, turning the blade face parallel to the keel. Push your upper arm downward and raise your lower hand to turn the blade out of the water in a splashless motion. Then, with the blade parallel to the water's surface, swing the paddle forward for the next stroke. Returning the paddle above and parallel to the water is called feathering. It cuts wind resistance on the forward blade action, and the blade skims over the waves on a windy day. The whole process of returning the paddle to the starting point of the next stroke is known as the recovery.

This simple paddle stroke sends the canoe surging forward with surprising ease. When mastered, its rhythmic sequence of dip, push and recovery becomes a movement of beauty and grace.

The J Stroke. When a paddler uses a straight bow stroke, there is a tendency for the canoe to veer slightly from a straight course. One reason for this is the position of the paddler's seat. To make room in the canoe for the bowman's feet, the bow seat is set back from the prow, or front tip. The stern seat is closer to the tip of the stern and farther from the wide center portion of the canoe.

In straight stroking, the sternman's paddle sweeps toward the tapering end of the canoe and causes the bow end to veer to the opposite direction of the stroking stern paddler. The J stroke, mainly executed from the stern, counteracts this veering tendency and keeps the canoe on course. At the same time, it propels the canoe forward.



J STROKE

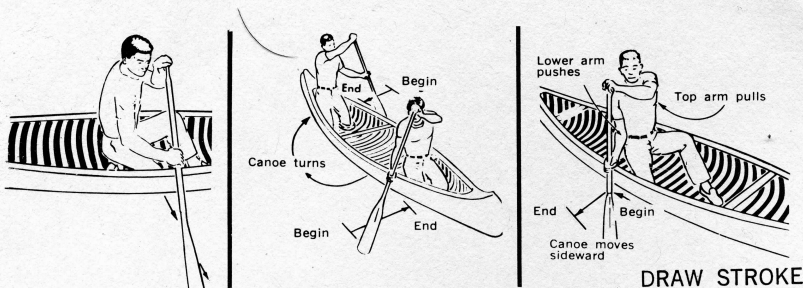
Begin the J stroke like the bow stroke, with your upper hand near your chin and your lower hand extending forward. Pull the paddle through the water in the same straight pattern until your lower hand nears your hip. Then turn your upper hand counter-clockwise so that the blade edge curves toward the stern. Continue a gradual sweep away from the canoe, executing a rough J pattern in the water with the blade face.

Your upper hand should be pulling in as your lower hand pushes slightly outward to complete the J. The stroke ends with the blade face parallel to the side of the canoe. Slice the blade out of the water on edge. Then make the recovery, swinging the paddle forward parallel to the water.

Beginners have a tendency to bring the paddle shaft to the gunwale to pry the blade into a sweeping J finish. Some use the paddle as a rudder by trailing it in the water at the end of each stroke. Although they may seem easier, these practices greatly interfere with the canoe's smooth forward progress. The J stroke may be difficult at first, but it becomes smooth and natural with practice.

The Draw Strokes. To move a canoe sideways or to turn it to one side, two main types of strokes are used—the draw strokes and the sweep strokes.

The draw strokes give the beginner the ability to make a sharper



turn than the other strokes. They are quite simple and can be mastered in a short time. The two basic strokes are the indraw and the outdraw, sometimes called the pullover and the pushover.

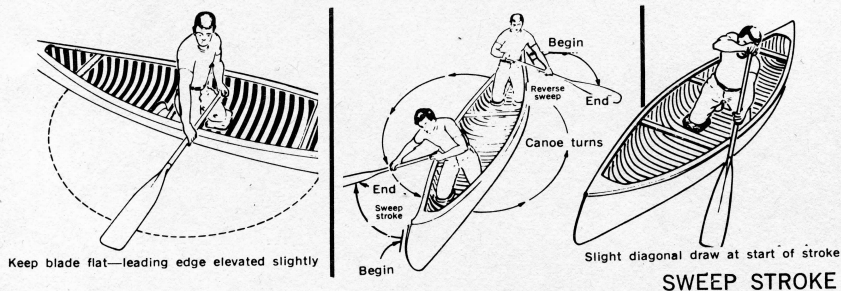
For better leverage on the indraw, place your lower hand a few inches above the paddle throat. Extend the paddle far out into the water on a line with your hip. The blade should face the side of the canoe. Pull the paddle toward the canoe with your lower hand, and press outward with your upper hand. This action draws the side of the canoe toward the paddle. Quickly slice the paddle toward the stern and out of the water to prevent it from banging the canoe.

To move sideways, both the bow and the stern paddler execute the indraw on the same side. When they execute it on opposite sides, the canoe pivots.

The outdraw stroke is the direct opposite of the indraw. Place the blade in the water near and parallel to the side of the canoe. Push out with your lower arm, and pull across with your upper arm. At the end of the stroke, with the blade near the water surface, recover and feather as in the bow stroke. This stroke drives the canoe sideways away from the paddle.

The Sweep Strokes. In the second type of turning strokes, use the paddle like an oar. Your upper arm should be bent, and your lower arm should be fairly straight and moved up on the paddle.

As bowman in tandem paddling, you perform the sweep in this way: Reach directly ahead to the bow and lightly dip the paddle at an angle into the water. Then, holding the paddle almost horizontally, swing outward and backward through an arc of up to 90 degrees for a quarter sweep. This stroke turns the canoe away from the side on which you stroke. For a half sweep, used in solo paddling, the arc should be 90 degrees or more. A full sweep of the paddle back to the stern is very powerful and may turn the canoe too fast for a beginner to maintain proper control.

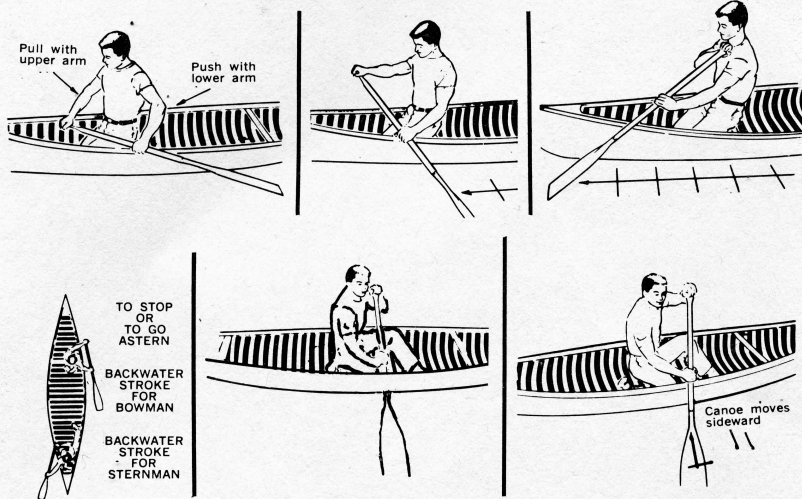


The reverse bow sweep is executed with action opposite that of the bow sweep. Begin with the paddle blade entering the water directly opposite your hip and sweep forward. This stroke turns the canoe toward the sweep side. The sternman performs a reverse sweep by dipping the paddle astern and sweeping the blade abeam.

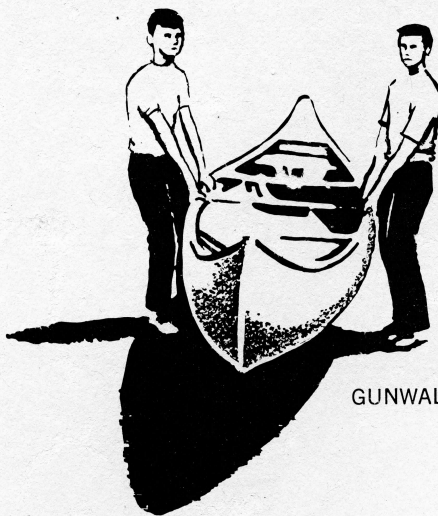
When the bowman makes a regular sweep on one side and the sternman uses the reverse sweep on the other, the canoe pivots. The pivot is useful for maneuvering the canoe in a small area.

The Jam Stroke. The jam stroke is a stopping stroke. It brakes the forward motion of the canoe. To execute it, slice the paddle blade downward into the water alongside the canoe. Keep the blade perpendicular to the keel. For support, hold the paddle with the thumb and fingers of your lower hand locked securely against the gunwale. Hold the grip firmly with your upper hand. To avoid tipping the canoe, the bowman and the sternman should perform the jam stroke in unison on opposite sides.

The Backwater Stroke. To reverse, or back up, a canoe, the backwater stroke is used. This stroke is the opposite of the bow stroke. In backwatering, you must first brake the forward motion of the canoe. Then dip the paddle blade into the water opposite your hip, with the blade perpendicular to the center line of the canoe. Push the blade forward with your lower arm, and pull the grip backward with your upper arm. When you have pushed the paddle as far as you can, lift the blade from the water and swing the paddle toward the stern to begin the next stroke.



BACKWATER STROKE



GUNWALE CARRY

CARRYING METHODS

Carrying the canoe to the water from the car, truck or storage rack is the first activity. To avoid excessive strain on the crew members, and to prevent possible damage to the canoe, it is best to use two or more carriers.

One of the simplest canoe carries is the **wedge, or deck, carry**. With the canoe on the ground, right side up, the crew member at the bow end places his fingers under the curved edge of the wedge. The stern carrier, standing on the opposite side of the bow carrier, grasps backhanded under the stern wedge. Then, facing forward, the carriers lift together on signal and carry the canoe right side up.

The **gunwale carry** is similar. Again the canoe is resting upright on the ground. The two carriers stand at the center, or point of balance, of the canoe, one on each side. They turn their bodies to face the bow, or direction of the carry. They bend down by flexing their knees and, with the hand near the canoe, hook their fingers under the inwale in a firm grip. Then, on signal, they lift. The balanced canoe remains parallel to the ground during the carry.

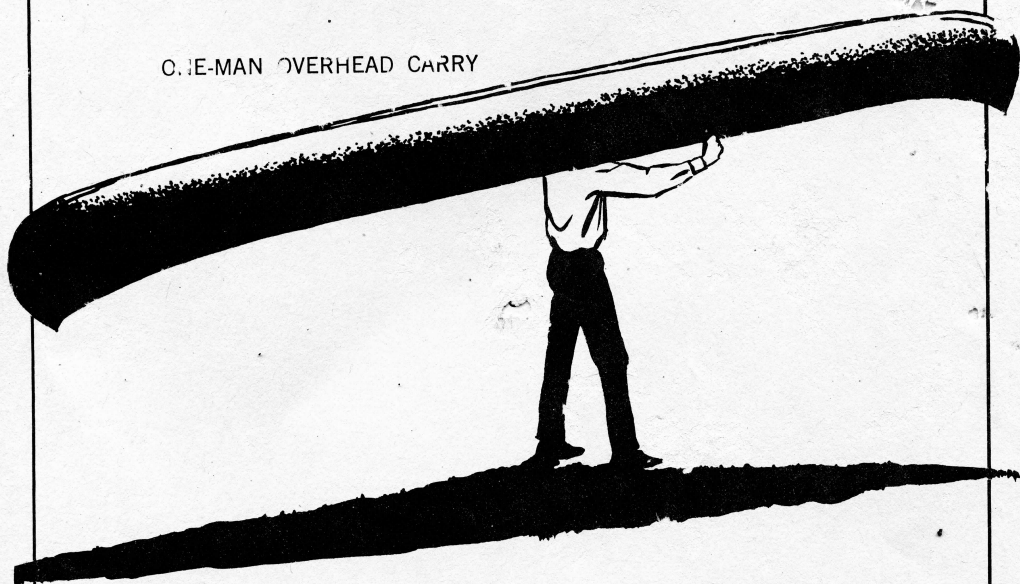
The gunwale carry can also be used by four persons. Two crew members stand by the bow seat, one on each side. The other two take gunwale positions near the stern seat. All crew members face the bow, standing sideways to the canoe. They grasp the inwales

with the hands adjacent to the canoe, lift it together on signal, and proceed to the launching site. The canoe's weight distributed over four points eases the carrying task.

A carrying method that should be used with caution is the **one-man overhead carry**. It should be attempted only if you are near-adult in size and strength, use a small, light canoe with a yoke and have the help of a partner.

To get the canoe overhead, use the walk-up system. Have your partner lift one end of the upside-down canoe as you walk under it. Move forward, sliding your hands along the gunwales until you reach the point of balance, which is slightly ahead of center. As the canoe levels off, duck your head so that your shoulders are brought up under the yoke. Your shoulders and outstretched hands on the gunwales give a three-point support. Carry the canoe with its leading end slightly higher than the back for a better view of the path.

ONE-MAN OVERHEAD CARRY



LAUNCHING AND BOARDING

The canoe should always be carried to the water for launching. Never drag, pull, push or slide it along, for this can severely damage the bottom.

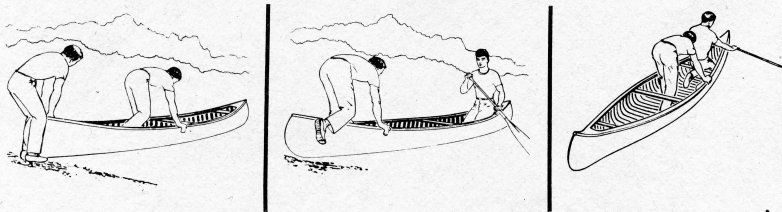
The procedure for launching from a level or gently sloping beach is known as **beach launching**. For this procedure, the stern of the canoe is usually dunked first. Therefore, it is best to use the two-person gunwale carry, which leaves the canoe ends free.

With your fellow launcher, extend the stern over the water and gently lower the canoe toward it. Slide your hands back from the point of balance to dip the stern of the canoe. Keep sliding back on the gunwales, hand over hand, and feed the canoe into the water. Take care not to scrape the bottom of the canoe on any sand or rocks that may damage it.

When afloat perpendicular to the shoreline, the canoe should have contact with the shore, with the bow lightly touching the sand bottom. The bowman steadies the canoe by bracing it between his knees in a straddling position. For additional control of the canoe during the sternman's boarding, the bowman also leans over and places his hands on the gunwales.

The sternman, with paddle in hand, steps around the bowman and enters the canoe by placing one foot in the center of the bottom. He bends over to grasp the gunwales, then brings in his other foot. Crouching so that his body stays low, he moves toward the stern of the canoe, sliding both hands along the gunwales. During the forward movement, he keeps his toes slightly turned in for better balance. Once seated in the stern seat, he dips the paddle in the water to steady the canoe while the bowman enters.

The bowman, preparatory to boarding, lifts the bow free of the bottom. Then, with a slight push-off, he steps directly into the canoe, turns around and sits down.



Should the canoe, with the added weight, remain in contact with the sand bottom, the bowman, hands on the gunwales, proceeds amidships. This shifts the trim of the canoe and makes it waterborne. Once the canoe is afloat, the sternman maneuvers it to deeper water. Then the bowman returns to his paddling position.

Launching a canoe from a dock, high bank or rocky ledge is called **dock**, or **alongside, launching**. This type of launching offers more advantages than boarding from a beach, so always be on the lookout for situations that will allow it.

From a dock, the canoe's entry into the water is best accomplished by the two-man gunwale, hand-over-hand technique just explained. After the canoe is afloat, it is brought alongside or parallel to, the dock. With the canoe floating in a sufficient depth of water, and the dock providing firm footing, duffel can be lowered into the canoe and passengers can board with ease.

If only two people are going out, the bowman generally boards first. To steady the canoe while the bowman boards, the sternman kneels on the dock and grasps the near gunwale. The bowman kneels, too, and facing the bow, moves the foot next to the canoe to the center of the canoe, the weight of his body resting on the foot that is still on the dock. This first step into the canoe should be executed with a downward pressure—not at an angle that will tend to push the canoe away. Quickly the bowman transfers his weight from the dock to the canoe as he brings his other foot aboard. Then, bending over, he grasps the gunwales and slides along, body low but head up, until he reaches his paddling position.

The sternman, following the same procedure, enters amidships and steps to his position. Some expert sternmen prefer to board first, so they can keep an eye on the activity before them, while holding the canoe free from the dock. However, in most cases, the sequence should be bowman, then sternman.

If a third person is in the party, he should be the first to board for stabilizing reasons. His boarding procedure is the same as the bowman's and sternman's.

Whether beach launching or dock launching, you must always enter the canoe with care—to protect yourself as well as your craft. Just as you should never step into the canoe when it is on the ground, never jump into it when it is in the water.

CRUISING

Once your canoe is afloat and free, you are ready to explore the coves, bays and islands of your watery domain in ways that no other boat can. Shallow water, narrow creeks, boulders and stumps offer no obstacle to your maneuverable canoe as it cruises over and around the rough spots and snags. Approach your first cruises cautiously and gradually. First, try short trips along the shore. Then, as your ability and self-confidence grow, make cruises across small lakes and into bays, outlets, and slow, shallow streams.

On extended trips, it is vitally important that you inform parents, friends, outfitter or local ranger of your plans—your route, intended campsites and approximate timetable. Then, if difficulties arise, people will know where to locate you.

Once the cruise is under way, the bowman sets the paddle-stroke pace. The Cree Indians in Canada execute 40 to 50 strokes per minute, using short strokes. Without trying to match the Indians' pace, the beginning canoeist should make his strokes short, but regular. The stern paddler matches the pace set by the bowman and keeps the canoe on course, using the J stroke when and if necessary. When paddlers are well matched and the canoe rides on a straight course, the sternman uses a straight bow stroke.

Paddlers dip their blades and stroke in unison, so both must keep in mind that a steady pace—even if it is slow—is best. Avoid the beginner's urge to start out with a fast pace that cannot be continued.

Throughout the cruise, the good canoeist, like the veteran outdoorsman, is constantly alert to weather signs, especially wind and wave conditions. Low fast-moving clouds, a sudden drop in temperature, wind shifts and darkening skies are signs to defer your cruise until favorable weather comes. No cruise is important enough for you to risk the safety of yourself or your canoe by going out during inclement weather. When you are far from shore, you are at the mercy of the elements, and they can be far stronger than men and boats.

Because the weather is not always ideal, learn to make the most of a bad situation. If forced to lay over for a while, use the time to fish on the leeward shore, repair gear, sew patches and buttons on clothes, or enjoy scuttlebutt sessions.

To minimize the effect of weather on your cruise, always keep as close as possible to land. Plot your paddling route so that islands, high bluffs and points of land will furnish shelter from the wind. Taking advantage of these windbreaks sometimes requires a different, longer course than the most direct one, but the safety considerations make sense.

If a high wind does develop when you are in the middle of a lake, paddle immediately toward the nearest shore. Paddle steadily to control the canoe; don't let the wind dictate your course or speed. Stay low in the canoe to avoid tipping.

While paddling toward shore, do not permit the waves to hit your canoe broadside. Take them at an angle. This will prevent the waves from washing over the gunwales and swamping the canoe. The technique of slicing the waves at an angle of 45 degrees or less is called quartering. To reach your destination when quartering, you must follow a zigzag path, rather than a straight course. Quartering of waves may be done whether you are going upwind or downwind.

When you reach the shore, stay there until the wind dies down. Stay for an hour, four hours, or overnight if necessary. Build a fire, and remain calm. You may be tired, wet, worried—but you'll be safe. By remaining in one place, it will be easier for searchers to find you. Remember that you will be missed, and help will arrive.

BEACHING AND DOCKING

When your cruise finishes at a beach or other level area, bring your canoe in with the bow leading at right angles to the shore. Approach the shore slowly to prevent scraping the bottom of the canoe on sand or pebbles.

As soon as the canoe makes contact with the shore or the lake bottom, the bowman steps out and pulls the bow onto the beach. The canoe should not be pulled up so far that the middle leaves the water, forming a bridge between the shore and the water. A suspended canoe is easily damaged. The bowman steadies the canoe by straddling it between his knees, as he did in the boarding procedure at the start of the trip. The sternman, bending over and sliding his hands along the gunwales, walks forward along the center of the canoe and steps out. Then, using the gunwale carry, both crewmen lift the canoe and remove it from the water.

Should your cruise end at a dock or pier, paddle slowly toward the dock, approaching at a slight angle to it. Ease the canoe over until it rests broadside to the landing platform. The sternman holds onto the dock as the bow paddler, also holding the dock for support, steps out. His step from the middle of the canoe is fast and shifts his weight quickly from the canoe to the dock.

The bowman then kneels on the dock, leans over, and grasps the near gunwale, steadying the canoe while the sternman steps out. When the canoe is unloaded, the stern is pushed out at right angles to the dock. Then the crew members pull up the canoe with the gunwale lift, careful not to scrape the bottom on the edge of the dock.

Your cruise over, you are well on your way to mastering the skills of canoeing. You have carried your canoe without damaging

it or straining yourself. You have launched it, used various paddling strokes to propel it, concerned yourself with navigation and weather-watching, and then brought the canoe safely back to shore.

All of these skills will bring you enjoyment again and again. However, to guarantee this satisfaction, you must assume the responsibility for, and assure the safety of, yourself, your crew and your cargo. This means you must know how to handle emergencies, and the biggest emergency in canoeing is capsizing.

CAPSIZING

Upsetting a canoe is a rare experience. Usually it is the result of knowing off, carelessness or disregard for the principles involved in proper balance when loading a canoe or cruising. If you follow proper procedures, you may enjoy canoeing all of your life without once capsizing.

The most important rule to remember about capsizing is: Always stay with the canoe! The canoe will float—whether it is upside down or upright and filled with water. Whatever its condition, it will remain buoyant and will support all of the passengers it carried. Don't abandon it under any circumstances.

The simplest thing to do in a capsizing is just to hold onto the canoe. This is the procedure recommended for beginning canoeists. If the canoe is upright you may easily hold onto the gunwales. If it is overturned, grasp the upturned keel amidships or the bow or stern line. You need not try to move the canoe if people are nearby and can come to your rescue, or if the wind will carry you to shore.

However, you can propel the canoe from your position in the water if you want to do so. Swim to the stern of the canoe, grasp the stern end, and float the canoe, bow first, to shore. Use a flutter or frog kick as you push the canoe along. Take your time, and rest frequently.

In situations where the canoe is upside down or where it is upright but filled with water, the beginning canoeist should not attempt to right the canoe or to reenter and bail. These procedures are best left to veteran canoeists. The beginner should just hold onto the canoe and float it to shore.

Whether veteran or beginner, however, it is important not to panic if your canoe capsizes. Catch your breath after the unexpected plunge. Then survey the situation, determine the best technique to follow and set about it calmly.



CANOE BALANCE

For stability in a loaded canoe, the weight should be distributed from side to side and from end to end so that the bow rides on the water slightly higher than the stern. Lay the heaviest cargo on the bottom and the lightweight cargo on the top. Be careful not to overload the canoe. The freeboard, or the space between the waterline and the gunwale, should be at least seven inches in smooth water and more in rough water.

SAFETY GUIDE

1. Take care of your canoe, paddles and other equipment. Always repair even the slightest damage, and replace equipment that you cannot restore to good condition. Store your canoe and paddles properly in a safe, dry place.
2. Learn and practice the paddling strokes so that you are confident in your ability to control the canoe. Avoid careless behavior.
3. Plan your canoe trip so that you have time to relax. If you are tired, stop to rest. Accidents may happen to the fatigued canoeist.
4. Always take a referee's whistle on a cruise. If you are in genuine danger, use the universal signal of distress known by all outdoorsmen—three shots, three flares, three whistle blasts or three signals of anything that can be seen or heard.
5. Stow in the canoe a first-aid manual and a first-aid kit packed in a waterproof container.
6. Never go on a canoe trip alone. If you go with a group, stay with them. If you should lose your way, remain calm. Don't wander aimlessly about. Stay where you can be seen.

FOR FURTHER READING, OUTDOOR WORLD RECOMMENDS:

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